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## Effect of yoga asana training program on selected motor ability, physiological & psychological variables of football players of Nasik district

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### Abstract

The objective of the study physical fitness has become a national concern. Health problems are rising to epidemic proportions. Despite advances in technology and medicine, the quality of life leaves much to be desired. In addition to early deaths, temporary and chronic illness and disabilities sap the strength and vitality of our nation. Crores of rupees are spent in hospital and medical care. Much of this tragic draining of our human and economic resources is the result of factors that require a broader look at physical fitness and methods for achieving it. For this study a total No. of 60 Football players of Nasik district were selected as sample of the study, using simple random sampling technique for select sample from Nasik district. and they equally divided into 30 each experimental and control group. The age, height and weight of the selected subjects ranged from seventeen to twenty years, 160 to 172 centimeters and 55 to 70 Kilograms respectively and the means were 18 years 2 months, 168 centimeters and 64 kilograms respectively. The experimental group underwent Yogic training program for twelve weeks and the subjects in control group were not engaged in any activity during this Yogic training period. Random group design, involving 60 students divided into two groups of 30 each, was used in this study. The control group "A" was not subjected to any treatment during experimental period whereas experimental group "B" was subjected to the experimental treatment during the period of experiment, group "B" was given yogic training daily for a period of twelve weeks, excluding Saturday and Sunday. The analysis of covariance on the data obtained for speed, Agility, Explosive power, Resting pulse rate, Skin temperature, Breath holding time & Self concept of the pre and post tests of the control and experimental groups have been presented in table no. 1. The table shown that scores means of control and experimental group were 7.13 sec & 6.61 sec, 11.02 sec & 10.21 sec, 2.15 m & 2.26 m, 73.72 b/m & 71.51 b/m, 98.3<sup>0</sup> F & 98.3<sup>0</sup> F, 40.38 sec & 42.62 sec, 151.62 marks & 154.45 marks respectively. The results of the study indicate that there were significant difference between the means of control and experimental groups. Since the obtained 'F' values were respectively 240.35, 129.18, 82.23, 81.64, 0.10, 51.63 & 13.69 were higher than the table value 4.01, the results becomes significant & the research hypothesis accepted.

**Keywords:** Yoga program, motor ability, physiological, psychological variable

### Introduction

Physical Fitness has become a national concern. Health problems are rising to epidemic proportions. Despite advances in technology and medicine, the quality of life leaves much to be desired. In addition to early deaths, temporary and chronic illness and disabilities sap the strength and vitality of our nation. Crores of rupees are spent in hospital and medical care. Much of this tragic draining of our human and economic resources is the result of factors that require a broader look at physical fitness and methods for achieving it.

The word "Yoga" is derived from the Sanskrit root "Yuj" meaning to bind, join attach and yoke to direct and concentrate one's attention on, to use and apply. It also means union or communion. It is the true union of our will with the will of God. It thus means, yoga is a practical aid, not a religion. Yoga is an ancient art based on a harmonizing system of development for the body, mind and spirit. The continued practice of yoga will lead you to a sense of peace and well being, and also a feeling of being at one with their environment. The practice of Yoga makes the body strong and flexible. It also improves the functioning of the respiratory, circulatory, digestive and hormonal systems. Yoga brings about emotional stability and clarity of mind. Exercise is needed all year long. For proper functioning, the human organs

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need, exercise as an essential ingredient on a regular basis just as demand for nutritious food. Asanas are physical exercise enabling the body to be physically fit. These exercise in physical education play an important part in helping the pupils to maintain a slim and youthful body. Several tests and experiments have been conducted to know the values and importance of asanas. The most important point to realize before starting the practice of yoga is that "The asanas are not just simple exercise but sustained scientific pattern" of posture.

## Material and Method

### Subjects

For this study a total No. of 60 Football players of Nasik district were selected as sample of the study, using simple random sampling technique for select sample from Nasik

district. and they equally divided into 30 each experimental and control group.

The age, height and weight of the selected subjects ranged from seventeen to twenty years, 160 to 172 centimeters and 55 to 70 Kilograms respectively and the means were 18 years 2 months, 168 centimeters and 64 kilograms respectively. The experimental group underwent Yogic training program for twelve weeks and the subjects in control group were not engaged in any activity during this Yogic training period.

### Selection of Variable

The study was taken to pinpoint the Motor ability components, Physiology & Psychological variables. Therefore, based on literary evidence and scholars own understanding the following variable was selected for the purpose of this study.

Selection of variable Table

Sr. No	Motor ability components	Test
1	Speed	50 meters Dash
2	Agility	4 x 10 meters Shuttle Run
3	Leg Explosive Power	Standing Broad Jump
Sr. No	Physiological variables	Measured by
1	Resting Pulse Rate	Heart Rate Monitor of Bio-Monitor
2	Skin Temperature	Temperature Bio-Monitor
3	Breath Holding Time	Stop Watch
Sr. No	Psychological variables	Measured by
1	Self Concept	Mukta Rani Rastogi Questionnaire

For this research, data collected from two groups were used statistically evaluation for significant differences, if any, applying the analysis of covariance (ANCOVA). In all the cases 0.05 level of confidence was fixed as a level of confidence to test the hypothesis.

### Procedure

Random group design, involving 60 students divided into two groups of 30 each, was used in this study. The control group "A" was not subjected to any treatment during experimental period whereas experimental group "B" was subjected to the experimental treatment during the period of experiment, group "B" was given yogic training daily for a period of twelve weeks, excluding Saturday and Sunday.

Yogic Training Programme during the training period, the experimental group underwent yogic practice for five continuous days a week for twelve weeks. Training included 30 minutes asanas in different postures and Pranayama for 5 minutes total time 35 minutes on each day for first four weeks. The remaining eight weeks for Yogic Training included 40 minutes asanas in different postures and

pranayama for 10 minutes totally 50 minutes on every day as recommended by Yoga expert. The subjects underwent their yogic training in the morning sessions from 6.15 am to 6.50 am for first four weeks, the remaining eight weeks from 6.15 am to 7.05 am under the supervision.

All the subjects were tested prior and after yogic training programme and cessation on Speed, Agility, Explosive power, Resting pulse rate, Skin temperature, Breath holding time & Self Concept. The study was aimed at mainly in find out the effects of yogic training on selected variables. The data collected from the two groups were statistically examined for significant difference, if any, applying the analysis of covariance (ANCOVA).

### Result of the study

The analysis of the data collected with regard to the study has been presented. In this study, the influences of yogic training as independent variables on speed, agility, leg explosive power, resting heart rate, skin temperature, breath holding time & self concept were investigated.

**Table 1:** Analysis of covariance on motor ability components, physiological & psychological variables of control & experimental groups

Test	Control Group	Exp Group	Sources of Variance	Sum of Squares	df	Mean Squares	Obtained F Value	Table Value
Speed	7.133	6.616	Between Within	3.964 0.939	1 57	3.961 0.016	240.35	4.01
Agility	11.024	10.213	Between Within	9.875 3.357	1 57	9.875 0.076	129.18	4.01
Explosive Power	2.147	2.263	Between Within	0.203 0.141	1 57	0.203 0.002	82.23	4.01
Resting Pulse Rate	73.724	71.509	Between Within	72.793 50.819	1 57	72.793 0.891	81.647	4.01
Skin Temperature	98.3	98.3	Between Within	0.009 5.025	1 57	0.0093 0.0882	0.1056	4.01
Breath Holding Time	40.383	42.617	Between Within	73.831 81.496	1 57	73.831 1.4298	51.638	4.01
Self Concept	151.61	154.44	Between Within	119.009 497.448	1 57	119.009 8.727	13.6367	4.01

### Discussion of the study

The analysis of covariance on the data obtained for speed, Agility, Explosive power, Resting pulse rate, Skin

temperature, Breath holding time & Self concept of the pre and post tests of the control and experimental groups have been presented in table no. 1. The table shown that scores

means of control and experimental group were 7.13 sec & 6.61 sec, 11.02 sec & 10.21 sec, 2.15 m & 2.26 m, 73.72 b/m & 71.51 b/m, 98.3<sup>o</sup> F & 98.3<sup>o</sup> F, 40.38 sec & 42.62 sec, 151.62 marks & 154.45 marks respectively. The results of the study indicate that there were significant difference between the means of control and experimental groups. Since the obtained 'F' values were respectively 240.35, 129.18, 82.23, 81.64, 0.10, 51.63 & 13.69 were higher than the table value 4.01, the results becomes significant & the research hypothesis accepted.

### Conclusion

The analysis of motor ability components that experiment group showed considerable improvement in Speed, Agility and Leg Explosive Power after the twelve weeks of yogic practices. At the same time control group had not shown any significant change in any of the selected motor ability components.

The analysis of physiological variables that experimental group showed considerable decrease in Resting Pulse Rate; at the same time noticeable increasing in Breath holding Time after the twelve weeks yogic practices was also observed. Control group had not shown any significant change for Resting Pulse rate and Breath holding time. Experimental and control groups had not shown any significant change in Skin temperature. The statistical analysis reveals that experimental group showed decrease in Trait anxiety level and increase in Self-Concept scale after the twelve weeks of Yogic practices. At the same time control group had not shown any significant changes in any of the selected psychological variables.

The results of the study indicate that the experimental group showed considerable improvement in all the variable except skin temperature after the twelve weeks yogic practices. At the same time control group had not shown any significant change in any of the selected variables.

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